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Response After Final Rejection

differences would otherwise be obvious" See *Ex Parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The Applicant believes that the case cited by the Examiner does not support the Examiners conclusion. In particular, the Board's holding in *Obiaya* rests on two precedent cases, *In Re Best*, 195 USPQ 430 (CCPA 1977) and *In Re Wilder*, 166 USPQ 545 (CCPA 1970).

In Re Best, deals with a 102/103 rejection in view of newly discovered functions or properties inherently possessed by things in the prior art. See page 433. However, the Examiner is not arguing that the composition of the current claims is a thing in the prior art, merely that such a composition may be suggested by the prior art. Therefore, this rationale for the holding in *Obiaya* is not applicable to the current case. Moreover, the inherency rejection dealt with in *In Re Best* was to claims for a process, not to compositions as currently claimed.

The other precedent case, *In Re Wilder*, is more on point. *Wilder* deals with claims to a composition of matter. However, as stated in footnote 3 of the *Wilder* opinion,

"It will be apparent that we are treating the instant claims, concededly drawn to compositions, as if the only important element is the anti-oxidant adjuvant and the rubber merely acts as a matrix or environment wherein the important properties of the adjuvant compound are manifested. In this respect the claims may be said to be similar to those drawn to a pharmaceutical or insecticidal compositions similarly containing only a single "active" ingredient. It should be apparent that this approach cannot be utilized with all claims drawn to compositions." (emphasis added)

Since the current claims are to a composition that cannot be categorized as containing only a single "active" ingredient, the rationale of *In Re Wilder*, and by extension, *Obiaya*, does not hold to the current claims.

If the Examiner is not persuaded by the above arguments, the Applicants request that the following question be addressed in the next Office Action. An axiom of patent law is that an obviousness rejection can be rebutted by a showing of unexpected results. However, under the Examiner's position, all properties of a new composition (that is rejected for obviousness) are inherent in that composition and any properties, even if unexpected, would be merely a newly discovered advantage flowing naturally from the suggestions in the prior art. Consequently, if the Examiner's argument holds, how could unexpected results ever be used to rebut an obviousness rejection?

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Therefore, the Applicants believe that the prior remarks and arguments that have been presented provide evidence of unexpected results that rebut the Examiner's *prima facie* case and are not dismissible under the doctrine of *Wilder/Best/Obiaya*. As such, the Applicants maintain their previous arguments, which are repeated below.

Claims 1, 4, 5, and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Delphin et al. (4,717,505) in view of Smalley et al. (6,183,714). The Examiner states that Delphin discloses a composition comprising polyethylene, at least about 3 parts by weight, based on the weight of the polyethylene, carbon fiber, and a conductive carbon black other than carbon fiber, the carbon black being present in an amount at least about 10 parts by weight, based on the weight of the polymer. The Examiner admits that Delphin does not disclose the composition comprising carbon nanotubes nor the composition used to surround the conductor. The Examiner relies on Smalley et al. for the disclosure of a composition comprising carbon nanotubes. The Examiner further states that it would have been obvious to one skilled in the art to use the composite of Delphin to surround the conductor since the composition provides both electrical and mechanical properties. The Applicants respectfully traverse.

The Applicants believe that the present invention exhibits surprising results in view of the prior art. In particular, the prior art would not lead one skilled in the art to expect the synergistic effects on melt viscosity and volume resistance achieved by using a blend of carbon nanotubes and carbon black. Also, the Applicants believe that the current invention demonstrates an unexpected long term stability in volume resistivity.

The Examiner will note at page 18, Table 1, that Example 1 reports a composition of which 38 weight percent is carbon black. This table also reports in Example 4 in which the composition is 19 weight percent carbon black and 10 weight percent carbon nanotubes (for a total of 29 weight percent which, for purposes of these examples, is approximately the same as 38 weight percent).

The Examiner will also note that Table 1 reports the viscosity for both of these compositions, and the viscosity of the Example 1 composition (all carbon black) is significantly higher at various shear rates than the viscosity of the Example 4 composition. The lower viscosity of Example 4 is important to a more facile in the processing of the composition into a semiconductor shield layer. This lower viscosity is even more striking when compared against

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the composition of Example 2 which contains 20 weight percent carbon nanotubes and 0 weight percent carbon black. The viscosity of the composition of Example 2 is even greater across the various shear rates than that of the composition of Example 1.

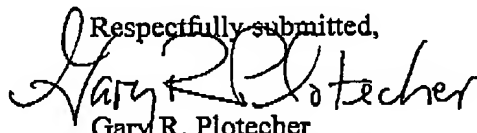
In addition, at page 20, Table 2 of the specification, the volume resistivities of the compositions of Examples 1-4 are reported. The Examiner will note that not only is the volume resistivity of the composition of Example 4 comparable to that of the composition of Example 1, but it is much more stable over various thermal cycles than the volume resistivity of the Example 1 composition.

Claims 2, 3, 6, and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Delphin et al. in view of Smalley et al. as applied to Claim 1 above, and further in view of Burns, Jr. (4,857,232). The Examiner admits that the combination of Delphin et al. and Smalley et al. do not disclose the use of a copolymer of ethylene and then unsaturated ester which are vinyl esters. The Examiner relies on Burns, Jr. to disclose the composition comprising a copolymer of ethylene and unsaturated esters. The Applicants traverse this rejection for the same reasons applied above to the rejection of Claims 1, 4, 5, and 7.

The Applicants believe that the claims are patentable for the reasons stated above. The Applicants therefore request that the Examiner reconsider and withdraw his rejections and issue a Notice of Allowance.

No fee is believed due for the filing of this Response, but if a fee is due, please charge Deposit Account 23,2053 and consider any necessary petition as provisionally made.

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